Industrial Storm Water Operator Review

All answers are found in the Industrial Storm Water Operator Training Manual, and on the answer sheet on the last page of this review.

Questions	Answer Location
1. The goal of the storm water program is to reduce pollution entering Michigan's waters by implementing controls designed to _____.	Page 5
2 The 1987 amendments to the Clean Water Act redefined point source discharges to include urban and industrial runoff directed to surface water through _____ _____.	Page 5
3. _____ Pollution is the Best Solution.	Page 5
4. Common sources of hydrocarbons are _____.	Page 6
5. Pesticides, herbicides, corroded metals, wood preservatives, paints and solvents are all examples of _____ pollutants.	Page 6
6. Oxygen depletion is a common cause of _____ and _____.	Page 6
7. The presence of _____ in surface water inhibits recreational uses such as swimming and boating, and can cause ear or intestinal problems as a result of contact.	Page 6
8. The 1987 amendments to the Clean Water Act required the development of regulations for storm water discharges from _____, _____ and _____.	Page 8
9. A person shall not discharge any waste or waste effluent into the waters of this state unless the person is _____.	Page 8
10. A Soil Erosion and Sedimentation Control Permit is required for any construction activity within _____ of a water body or whenever _____ or more of land is disturbed.	Page 9
11. A facility with coverage under a general permit will be authorized to discharge upon receipt of a _____ from MDEQ.	Page 11

12. Any facility with _____ _____ must have storm water permit coverage.	Page 11
13. There are 2 types of storm water general permits in Michigan. The requirements of these permits are identical except that *Storm Water with Required Monitoring* also requires the permittee to _____ _____.	Page 12
14. To apply for coverage under a storm water general permit you must submit a _____ to MDEQ.	Page 12
15. A facility must have permit coverage before _____ _____.	Page 13
16. The certified storm water operator shall have supervision over the _____ and _____ of storm water controls at the facility.	Page 14
17. When a facility acquires the services of a new certified operator, the new operator must _____ _____.	Page 15
18. Inventory both the _____ and _____ of the facility to determine material and practices that may be sources of contamination to storm water runoff.	Page 16
19. Preparing the _____ is the first step in assessing the facility.	Page 17
20. The inventory of potential sources should include areas where materials are _____, _____, _____ or _____ throughout the industrial process.	Page 17
21. _____ are every-day types of activities that are relatively simple, fairly inexpensive and applicable to a wide variety of industries.	Page 18
22. _____ involves the regular inspection, testing and cleaning of facility equipment and operational systems.	Page 18
23. Promptly _____ or _____ any defective equipment found during inspections.	Page 18
24. _____ are designed to maintain a clean and orderly work environment, thus reducing the potential for pollutants to come in contact with storm water.	Page 19

25. Proper _____ of materials can minimize the potential for the accidental release of materials that can cause pollution.	Page 19
26. Keeping an _____ of all materials present on-site will help to keep costs down, track material storage and handling, and identify which materials and activities pose the greatest risk to the environment.	Page 20
27. _____ and _____ together are one of the largest sources of storm water pollution, and in most cases are avoidable.	Page 20
28. In the event of a discharge to the environment you must report the release immediately to _____.	Page 21
29. _____ is a critical component of the SWPPP. The better informed employees are about what is going on at the plant and what is expected of them, the more effective the SWPPP.	Page 21
30. _____ will be necessary when non-structural controls are not adequate to prevent contamination of storm water. These are physical features that control and prevent storm water pollution.	Page 22
31. _____ and _____ are a good way to identify problem areas, hazardous materials, and suggest caution in certain areas.	Page 22
32. Safeguards include _____, _____ and _____.	Page 22
33. _____ is the partial or total enclosure of an area to prevent rain and snow from coming into contact with potential pollutants.	Page 23
34. Diversions are structures that are used to divert storm water away from high risk areas to _____ _____ or to _____ _____.	Page 23
35. _____ is a control measure often used in conjunction with other practices to reduce runoff velocity, divert runoff away from industrial activities, and encourage infiltration of storm water.	Page 25
36. Containment dikes are _____ _____ that are designed to _____.	Page 25

37. _____ of water trapped in the containment area should always be conducted prior to discharge. _____ or _____ _____ indicate that the storm water in the containment area should not be discharged to surface waters or to the ground.	Page 26
38. _____ are used to contain small leaks from valves, pipes and other areas where leaks and drips may occur.	Page 27
39. Sumps are located and designed to collect spilled materials in containment areas. The sump should be in the _____ area of the containment area. It should be made of _____ with a _____.	Page 27
40. _____ skim the oil off the surface of the water. They are effective only if _____ _____.	Page 28
41. Most non-storm water discharges, as defined in the general permit, are not authorized under the general storm water permits, and are considered _____. These types of discharges must be addressed in one of the following ways: _____, _____, or _____.	Page 31
42. Visual inspections, sewer map reviews, dye testing and smoke testing are methods used to check for _____ _____.	Page 31
43. Non-storm water discharges authorized under a general storm water permit include: _____ _____ _____.	Page 33
44. Comprehensive inspections provide the basis for determining the overall effectiveness of the SWPPP, and must be conducted at least _____.	Page 33
45. Routine inspections should be performed frequently so that _____.	Page 33
46. _____ and _____ is an effective way of tracking the progress of the pollution prevention efforts.	Page 34
47. A review of the SWPPP must be conducted _____. The SWPPP must be revised or updated if _____ _____.	Page 34

48. Under the general permit *Storm Water With Required Monitoring*, permittees are required to submit a plan for _____ and _____ to the District Supervisor within _____ after the effective date of the certificate of coverage.	Page 35
49. Certification statements that requirements of the general storm water permits have been completed must be provided to _____.	Page 36
50. The permittee shall _____ report any spill or loss of any substance which occurs to the surface waters or ground waters of the state by _____ _____.	Page 40

Answers to Industrial Operator Storm Water Review

1. prevent the contamination of storm water runoff
2. discrete conveyances such as a pipe, ditch, graded lot or constructed waterway.
3. Preventing
4. spills at oil storage and fueling facilities, automobiles and equipment, and improper disposal of waste oils
5. toxic
6. fish kills; odor problems
7. pathogens
8. industrial activities; construction activities; municipal separate storm sewer systems
9. in possession of a valid permit from the MDEQ.
10. 500 feet; 1 acre
11. certificate of coverage
12. storm water discharges associated with industrial activities
13. conduct a short-term characterization study of storm water discharges from certain areas.
14. Notice of Intent
15. discharging storm water from areas of industrial activity.
16. inspection; management
17. review and sign the Storm Water Pollution Prevention Plan
18. inside; outside
19. site map
20. stored; processed; transported; disposed
21. Non-structural controls
22. Preventive maintenance
23. replace; repair
24. Good housekeeping practices
25. storage
26. up-to-date inventory
27. Spills; leaks
28. MDEQ
29. Employee training
30. Structural controls
31. Signs; labels
32. safety posts; barriers; fences
33. Covering
34. prevent contaminants from mixing with storm water runoff; channel contaminated storm water runoff to a treatment facility or containment area.
35. Grading
36. earthen or concrete berms or retaining walls; hold spills
37. Visual inspections; visual sheens; unnatural turbidity
38. Drip pans
39. lowest lying; impenetrable materials; smooth surface
40. oil/water separators; regularly and properly maintained

41. illicit connections; covered under another NPDES permit; re-routed to a sanitary sewer system (with approval of the treatment plan operator); eliminated
42. non-storm water discharges or illicit connections
43. discharges from fire fighting activities, fire hydrant flushing, potable water sources, irrigation drainage, lawn watering, uncontaminated ground water and air conditioner condensate
44. every 6 months
45. corrections can be made quickly
46. Record keeping; reporting
47. annually; the information in the SWPPP is no longer accurate or current, the implemented controls are not adequate, or because of additions or modifications to procedures.
48. monitoring; analysis; 6 months
49. the MDEQ Surface Water Quality Division District Supervisor
50. immediately; calling the MDEQ's 24-hour Emergency Response telephone number.